

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

SUBJECT: Toxicological Review of HW08B Data 19 July 2012
Dimock, PA

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On 3 July 2012, U.S. EPA collected samples from HW08B in Dimock. These samples were collected from the tap, and analyzed for manganese. (Note that this residence shares a well with HW-08A, but has a pre-existing treatment system and also receives bulk water as an alternate supply.) Analytical results were validated and compared to risk-based screening levels and/or standards for public drinking water. Findings are presented below.

Manganese

Manganese was observed in tap samples at 1070 ug/L (unfiltered) and 1030 ug/L (filtered). The risk-based screening level for manganese is 320 ug/L (at a Hazard Quotient of 1). Additionally, a non-enforceable drinking water standard of 50 ug/L exists for manganese; this standard is based on aesthetic considerations, such as taste and smell, rather than adverse health endpoints. The HW08B tap concentrations of manganese exceed the risk-based comparison criterion (320 ug/L) by approximately three-fold, yielding a Hazard Quotient of 3.3 under long-term exposure conditions.

The well (HW08A) shared by this residence (HW08B) revealed manganese at 1150 to 1170 ug/L in unfiltered and filtered wellhead samples (July 2012). These results are consistent with data collected in May 2012, where manganese was detected in HW08A wellhead samples at concentrations of 942 ug/L (unfiltered) and 915 ug/L (filtered). During the 25 January 2012 sampling event, however, manganese was reported at levels well below risk-based triggers, 64.3 ug/L (unfiltered) and 64 ug/L (filtered).



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